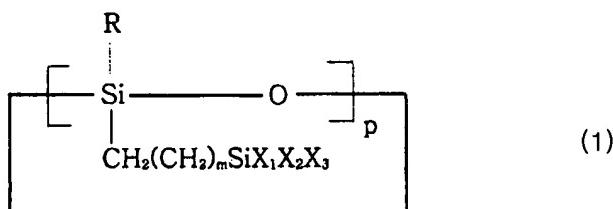


## **AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A siloxane-based resin prepared by hydrolyzing and polycondensing a cyclic siloxane compound of formula (1), together with a silane compound of formula (3) and/or or by hydrolyzing and polycondensing the cyclic siloxane compound of formula (1) together with the silane compound of formula (3) and a silane compound of formula (4), in an organic solvent in the presence of a catalyst and water:



wherein,

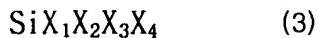
R is H, C<sub>1-3</sub> alkyl, C<sub>3-10</sub> cycloalkyl, or C<sub>6-15</sub> aryl;

each of  $X_1$ ,  $X_2$ , and  $X_3$  is, independently,  $C_{1-3}$  alkyl,  $C_{1-10}$  alkoxy, or [[halo]]

halogen, provided that at least one is alkoxy or [[halo]] halogen;

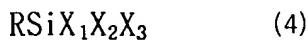
p is an integer from 3 to 8; and

m is an integer from 1 to 10;



wherein,

each of X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, and X<sub>4</sub> is, independently, C<sub>1-10</sub> alkoxy, or [[halo]] halogen;

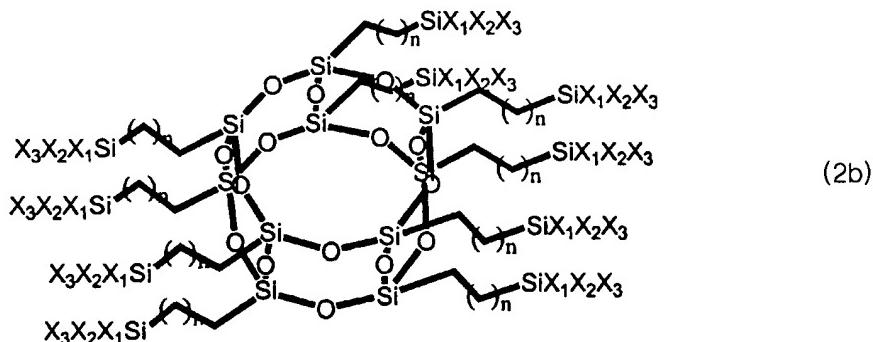
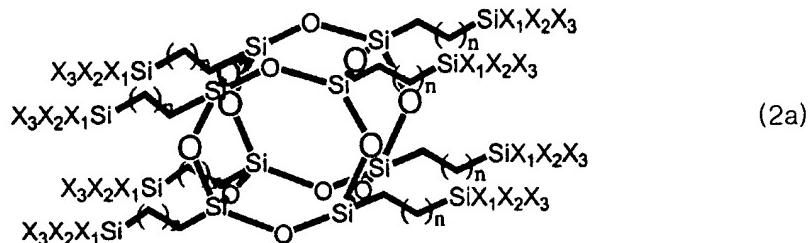


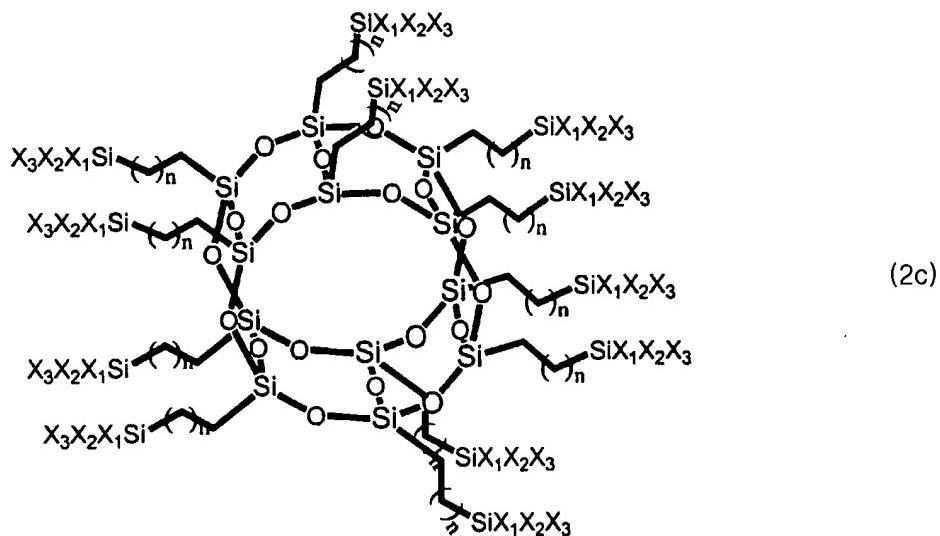
wherein,

R is H, C<sub>1-3</sub> alkyl, C<sub>3-10</sub> cycloalkyl, or C<sub>6-15</sub> aryl; and  
each of X<sub>1</sub>, X<sub>2</sub>, and X<sub>3</sub> is, independently, C<sub>1-3</sub> alkyl, C<sub>1-10</sub> alkoxy, or [[halo]]  
halogen, provided that at least one is alkoxy or [[halo]] halogen.

2. (Cancelled)

3. (New) A siloxane-based resin prepared by hydrolyzing and polycondensing a cage-shape siloxane compound of any of formulas (2a) through (2c), together with a silane compound of formula (3) and/or a silane compound of formula (4), in an organic solvent in the presence of a catalyst and water:



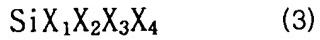


in the above formulas (2a) through (2c),

each of  $X_1$ ,  $X_2$ , and  $X_3$  is, independently,  $C_{1-3}$  alkyl,  $C_{1-10}$  alkoxy, or

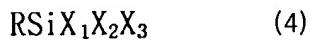
halogen, provided that at least one is alkoxy or halogen; and

$n$  is an integer from 1 to 12;



wherein,

each of  $X_1$ ,  $X_2$ ,  $X_3$ , and  $X_4$  is, independently,  $C_{1-10}$  alkoxy, or halogen;



wherein,

$R$  is  $H$ ,  $C_{1-3}$  alkyl,  $C_{3-10}$  cycloalkyl, or  $C_{6-15}$  aryl; and

each of  $X_1$ ,  $X_2$ , and  $X_3$  is, independently,  $C_{1-3}$  alkyl,  $C_{1-10}$  alkoxy, or halo, provided that at least one is alkoxy or halogen.

4. (New) The siloxane-based resin of claim 1, wherein a molar ratio of the compound of formula (1) to the compound of formula (3) is between 99.9:0.1 and 0.1:99.9.

5. (New) The siloxane-based resin of claim 1, wherein a molar ratio of the compound of formula (1) to the compound of formula (3) is between 95:5 and 50:50.

6. (New) The siloxane-based resin of claim 1, wherein the resin contains 1-98 mol% of the compound of formula (1), 1-98 mol% of the compound of formula (3) and 1-98 mol% of the compound of formula (4).

7. (New) The siloxane-based resin of claim 3, wherein a molar ratio of the compound of formula (2a-2c) to the compound of formula (4) is between 99.9:0.1 and 0.1:99.9.

8. (New) The siloxane-based resin of claim 3, wherein a molar ratio of the compound of formula (2a-2c) to the compound of formula (4) is between 5:95 and 50:50.

9. (New) The siloxane-based resin of claim 3, wherein the resin contains 1-98 mol% of the compound of formula (2a-2c), 1-98 mol% of the compound of formula (3) and 1-98 mol% of the compound of formula (4).

10. (New) The siloxane-based resin of claim 1, wherein the resin has a molecular weight of 3,000 to 500,000.

11. (New) The siloxane-based resin of claim 1, wherein the resin has a molecular weight of 3,000 to 100,000.

12. (New) The siloxane-based resin of claim 3, wherein the resin has a molecular weight of 3,000 to 500,000.

13. (New) The siloxane-based resin of claim 3, wherein the resin has a molecular weight of 3,000 to 100,000.